

## IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the preparation of an aqueous polymer dispersion ~~by comprising~~ reacting at least one olefin in the presence of at least one polymerization catalyst and one emulsifier in an aqueous medium, wherein the polymerization catalyst is produced in an in situ reaction by reacting the ligand compound 2,6-dichloro-para-benzoquinone (Ia) and/or 2,3,6-trichloro-para-benzoquinone (Ib) with a phosphine compound  $PR_3'$ , where  $R'$  is hydrogen,  $C_1$ - $C_{12}$ -alkyl,  $C_3$ - $C_{12}$ -cycloalkyl,  $C_7$ - $C_{15}$ -aralkyl or  $C_6$ - $C_{14}$ -aryl, or with a diphosphine compound  $R_2'P-G-PR_2'$ , where  $R'$  has the same meanings as in the phosphine compounds  $PR_3'$  and G is a divalent radical, such as  $C_1$ - $C_{12}$ -alkylene,  $C_3$ - $C_{12}$ -cycloalkylene,  $C_7$ - $C_{15}$ -aralkylene or  $C_6$ - $C_{14}$ -arylene, and with a metal compound of the formula  $M(L^2)_2$  or  $M(L^2)_2(L^1)_z$ ,

where:

$M$  is a transition metal of groups 7 to 10 of the Periodic Table of the Elements,

$L^1$  are phosphanes  $(R^1)_xPH_{3-x}$  or amines  $(R^1)_xNH_{3-x}$  having identical or different radicals  $R^1$ , diamines, ethers  $(R^1)_2O$ , water, alcohols  $(R^1)OH$ , pyridine, pyridine derivatives of the formula  $C_5H_{5-x}(R^1)_xN$ , carbon monoxide,  $C_1$ - $C_{12}$ -alkynitriles,  $C_6$ - $C_{14}$ -arylnitriles or ethylenically unsaturated double bond systems, where  $x$  is an integer from 0 to 3,

$R^1$  is hydrogen or  $C_1$ - $C_{20}$ -alkyl, which in turn may be substituted by  $O(C_1$ - $C_6$ -alkyl) or  $N(C_1$ - $C_6$ -alkyl) $_2$ , or is  $C_3$ - $C_{12}$ -cycloalkyl,  $C_7$ - $C_{15}$ -aralkyl or  $C_6$ - $C_{14}$ -aryl,

$L^2$  are halide ions,  $R^2_xNH_{3-x}$ , where  $x$  is an integer from 0 to 3 and  $R^2$  is  $C_1$ - $C_{12}$ -alkyl, and furthermore  $C_1$ - $C_6$ -alkyl anions, allyl anions, benzyl anions or aryl anions, where  $L^1$  and  $L^2$  may be linked to one another by one or more covalent bonds,

$z$  is from 0 to 4,

and the polymerization of the at least one olefin is effected in an aqueous medium which comprises at least 50% by volume of water.

Claim 2 (Original): The process according to claim 1, wherein the polymerization is effected under the conditions of an aqueous miniemulsion polymerization.

Claim 3 (Currently Amended): The process according to claim 1-~~or 2~~, wherein the polymerization is effected in the presence of an anionic emulsifier.

Claim 4 (Currently Amended): The process according to any of claims 1 to 3 claim 1, wherein the polymerization is effected in the presence of ethylene.

Claim 5 (Original): The process according to claim 4, wherein, in addition to ethylene, at least one further olefin which is selected from the group consisting of propylene, 1-butene, 1-hexene, 1-octene, norbornene and styrene is used for the polymerization.

Claim 6 (Original): The process according to claim 4, wherein exclusively ethylene is used for the polymerization.